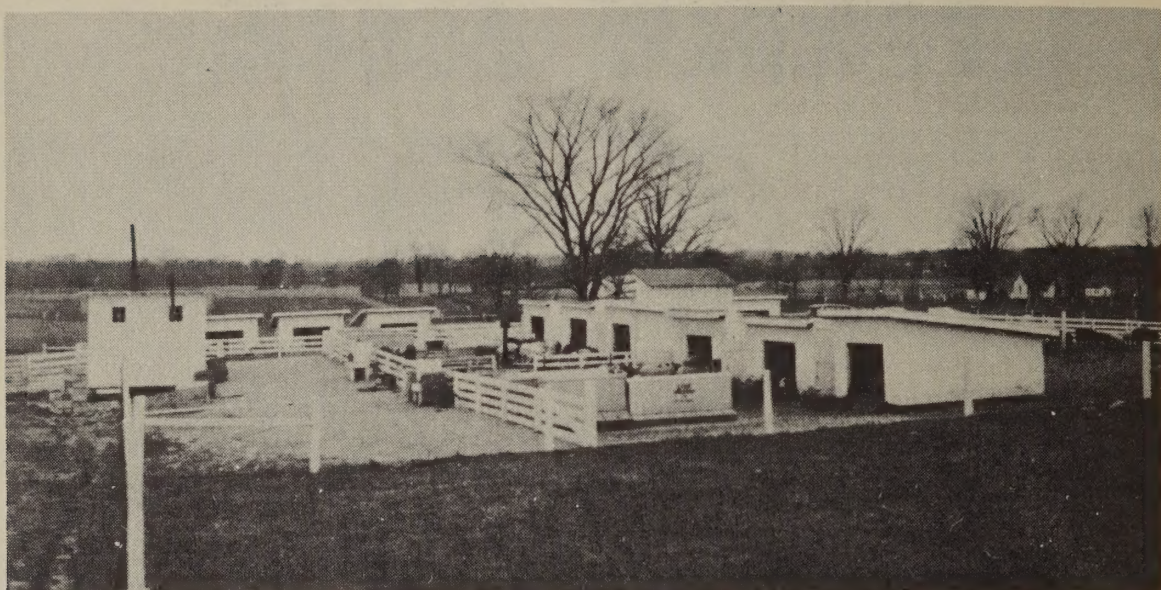


HERE ARE 40 GOLDEN ACRES



ON

**"The Semi-Solid System"
OF RAISING HOGS**



Efficiency pays off for the hog producer. On the Gentry Farm, Indiana, "The Semi-Solid System" demonstrates that the commercial hog raiser can make money by forcing down costs. Four units, raising 200 hogs, cut feed costs . . . took the hogs out of the mud . . . helped send more than 8 pigs per sow to market. Six more units are being added to expand to 40 Golden Acres.

The First . . .
**New Complete System
of Raising Hogs**
. . . In Twenty Years

Presented by

Consolidated Products Company
DANVILLE, ILLINOIS

Manufacturers of

Semi-Solid SOW Emulsion
Semi-Solid PIG Emulsion

Semi-Solid CHICK Emulsion
Semi-Solid "E" Emulsion

Kaff-A for Calves

Copyright 1949

Should the Hog Industry Be Specialized?

THE DAY of specialization in farming is at hand. The trend is likely to continue. While the slogan of the successful farmer used to be "depend on the cow, the sow and the hen," we now have extreme specialization on both dairy and poultry farms. Only the hog farm has lagged behind and now it, too, can become a specialized program—a corn-hog program.

One of the reasons the hog project has lacked specialization on many farms is because of the disease problem. The McLean County System has been only partially successful in reducing mortality. We believe the Semi-Solid System is a solution to that problem.

Forty Golden Acres

Some farmers are even to the point where they will utilize 40 acres to produce 1,000 hogs per year as a one-man project. No other farming is engaged in. All feed, including corn, is purchased.

Other farmers on good corn land utilize 40 acres of land for their 1,000 a year hog project and depend on the other 200 acres, under a crop rotation plan, to produce all of the corn those 1,000 hogs will eat.

Either method will produce unusually high profits in both good years and bad . . . using the same 40 acres year after year. For instance: When corn is 50c per bushel and hogs are selling for \$6 cwt., these 40 acres should net about \$3,500 annually; with corn at \$1 and hogs at \$12, net should be about \$8,800; with corn at \$1.50 and hogs at \$18, net would run around \$14,000; and with corn at \$2 and hogs at \$24, net should approximate \$20,000. These are forty golden acres year after year.

4 Acres—100 Hogs

40 Acres—1000 Hogs

This system is not limited to large commercial hog farms. It can become a profitable enterprise for the smaller commercial hog raiser and the purebred hog raiser. With 6-7 sows and a boar, the commercial man can start with one unit on four acres and gradually build to any size he wishes.

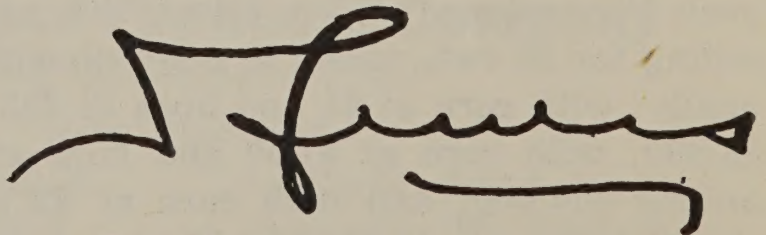
The purebred raiser can install a unit as a valuable part of his operation. It will provide a commercial set-up for 100-120 hogs a year. Not only will this help stabilize hog income year after year, but it will also demonstrate the value of his purebred stock to commercial hog raising buyers.

A Pork Production Line

The Semi-Solid System is a production-line method of raising hogs. It is composed of the best ideas of the wise men of the hog world and rolls them into one efficient sound means of producing hogs at a saving of grain, time, land and the hogs themselves. It is an engineered arrangement which streamlines hog production methods.

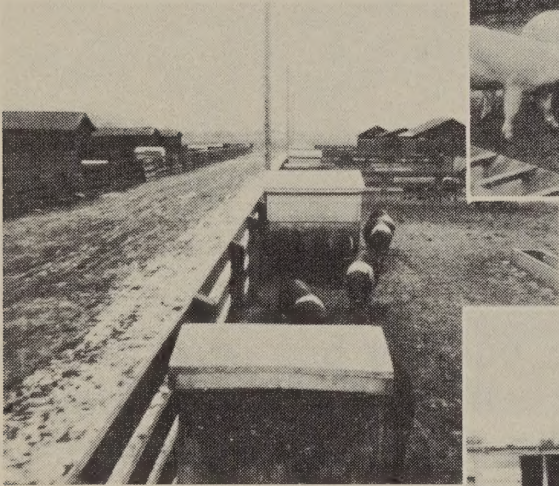
The Semi-Solid System is an exact program of breeding, management and nutrition. It carries an exact time schedule for doing each of the things that management requires. It requires sanitation in an exact way. It requires proper shelter, plenty of clean cool water in the summer time and clean warm water in the winter. It requires exact breeding methods; it requires the utilization of small areas for large numbers of hogs.

The Semi-Solid System of raising market hogs is designed to make hog raising a good money maker for the producer. Like any good system of raising livestock, it must rest on four good pillars, namely (1) breeding, (2) management, (3) nutrition, and (4) farm layout.

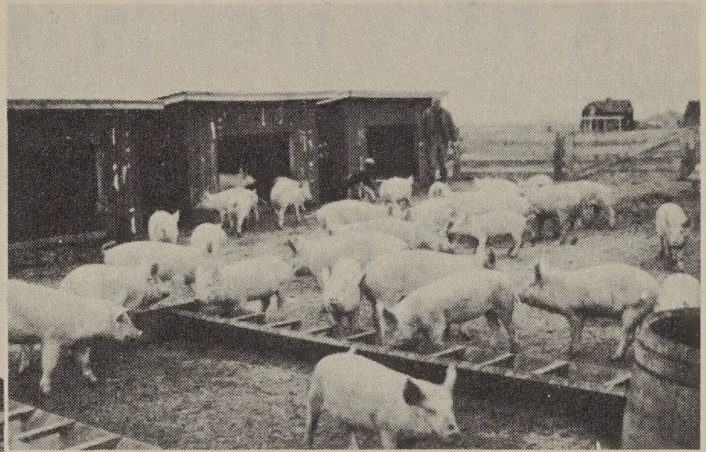
A stylized, handwritten signature in dark ink, likely belonging to the President of Consolidated Products Company. The signature is fluid and cursive, with a prominent initial 'C' and a long, sweeping underline.

**President
Consolidated Products Company**

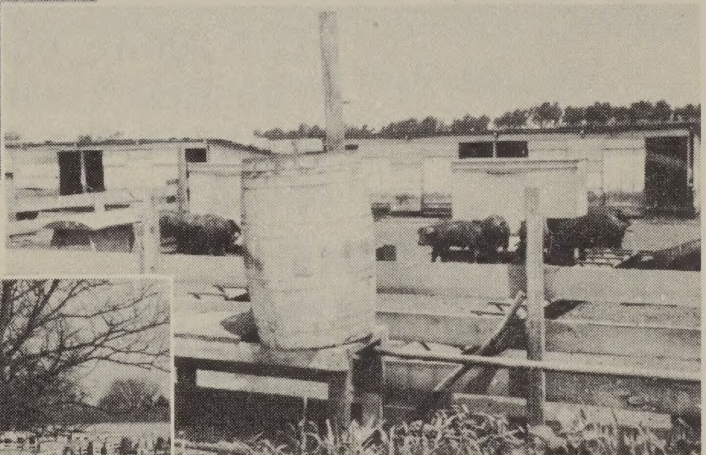
**"THE SEMI-SOLID
SYSTEM" IN
ACTION!**



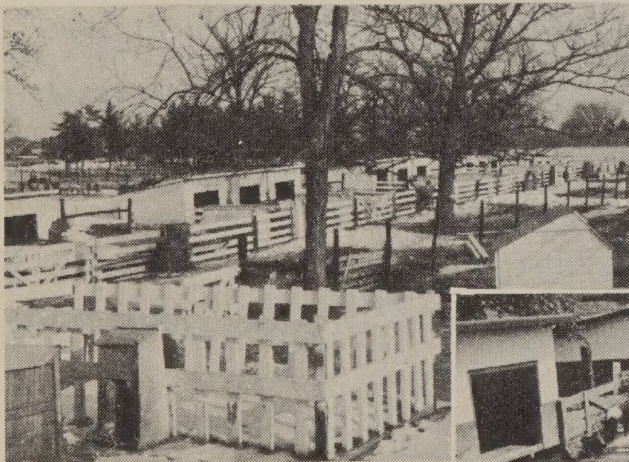
**Marsh Foundation Farms,
Ohio**



Semison Farm, Ind.

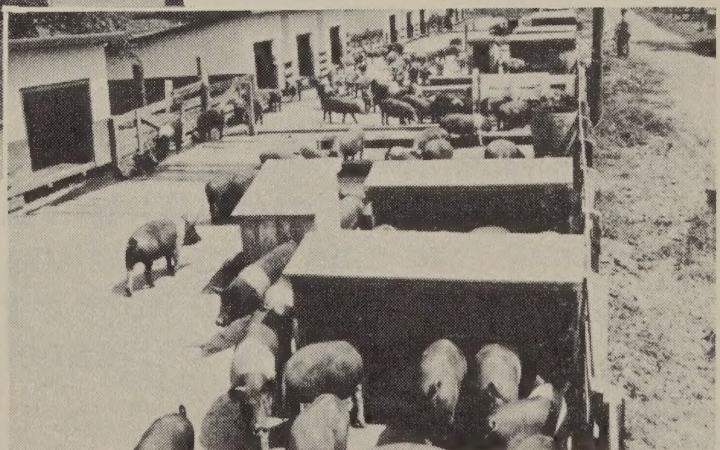


Mefford Farms, Illinois



**Christiansen Farm,
Iowa**

**Conner Prairie Farms,
Indiana**



Scores of Corn Belt Farms now raise hogs by "The Semi-Solid System." Units are also going into operation in many other states.

A NEW Idea in Hog Raising

"The Semi-Solid System"

Helps You . . .

1. SAVE HOGS.

Eight or more hogs saved and marketed per litter.

2. SAVE FEED.

Each 200-lb. butcher hog produced on 9 bushels corn, 66 lbs. 40% supplement, 64 lbs. Semi-Solid Emulsions and .4 lb. mineral.

3. SAVE TIME.

Three pound pigs at birth, 35-40 lb. pigs at weaning and 200 lb. or better market hogs in less than 6 months.

4. SAVE LABOR.

One man, with a little help twice a year, can raise as many as 1,000 hogs a year.

5. SAVE LAND.

From 100 to 120 hogs a year raised on 4 acres of the same land—as many as 1,000 hogs a year raised on just 40 acres. Permanent set-up.

6. SAVE MONEY.

Market equal numbers of hogs in Aug.-Sept. and Feb.-March, when prices are highest. **Top-of-the-market** hogs, with a minimum of lard and a maximum of pork.



Start Feeding Baby Pigs When You Breed Their Mothers.

THE most neglected period in hog raising is usually the time from breeding to weaning. National average figures show that less than 7 pigs per litter are weaned. Average weight per pig at weaning is less than 29 lbs.

Contrast these figures to those on the 516 pigs above, weaned in the fall of 1948 on the Semi-Solid Experimental Farm. These pigs came from 60 sows and gilts, which means an average of 8.6 pigs weaned per litter. At weaning time, 56 days, average weight per pig was better than 36 lbs. At 5½ months, marketing weight per hog was 204 lbs.

Why did these sows do so much better than sows on the average farm? Even before breeding, close attention was paid to sow and boar **feeding**, for good breeding condition. Careful feeding and balanced nutrition played a big part throughout gestation and lactation. The baby pigs themselves were on full feed quickly . . . were fed a balanced ration at the right times.

But feeding alone is not responsible for profitable results during this important period. Breeding and management deserve a good share of attention also. And so this little booklet leads you through every detail in a hog's life.

Big litters of heavy hogs in less than six months are seldom an accident. These litters are **made**, not born. Let this booklet help you **make** highly profitable litters, year after year.



We have all paid too little attention to feeding—to sow care and breeding. And we have paid the price in small litters, slow pigs and low profit. Because of the very great need for more information on sow feeding, breeding and management, several steps have been taken to provide you with this information.

First, this booklet compiles every known detail of feeding, breeding and management of sows. Secondly, it tells you about a new food for sows, boars and baby pigs . . . and how to feed this product for best results.

The new **Semi-Solid SOW Emulsion**, pictured above, has special food values for breeders and baby pigs. It differs from Semi-Solid PIG Emulsion in several respects. Semi-Solid SOW Emulsion provides twice the Vitamin A, for instance. A large daily intake of this vitamin is especially helpful to breeders. The entire B-Complex Vitamin group has been stepped up considerably. This means more choline, niacin, biotin, riboflavin, thiamine, pantothenic acid, pyrodoxine and folic acid—for better carbohydrate assimilation and growth stimulation. Proteins and Minerals are also stepped up.

In considerable test work, involving the production of more than 400 litters, the new Semi-Solid SOW Emulsion has proved itself superior to anything else for sows and boars the year around and baby pigs up to weaning. After weaning, be sure to feed Semi-Solid PIG Emulsion to growing pigs.

More than 80% of hog production costs is feed. So success depends largely on how well you feed.

With an abundance of corn on your farm, temptation to feed it heavily may be great. But corn alone is a poor feed for a gestation or lactation ration. Even with some proteins added, it is not the most efficient system.

About one-third of all pigs farrowed die before weaning—and a good share of these are lost because of an improper sow ration.

Therefore, a special ration with Semi-Solid SOW Emulsion for gilts and sows will give top results—not merely in number of pigs farrowed, but in their birth weight and in the speed with which they grow.

Poor handling and feeding of sows is the big hole through which goes much of the feeding profit in hogs. Some feeders insist on self-feeding sows, but they pay dearly for the ease of it—with high feed costs, smaller pigs and slow gaining pigs.

Costs of Pork Production

80%	Feed
6%	Labor
5%	Equipment
3%	Investment in Breeding Herd
4%	Overhead
2%	Veterinary Services

Reference—Univ. of Ill. Bull.
390

Supplementary Feeding Saves Pigs

Gestation Ration	Number of Sows	Average Number Live Pigs Farrowed Per Sow	Per Cent Pigs Died During First Week	Per Cent Pigs Saved (End of) First Week
Grain + Minerals	31	8.06	44%	56%
Grain + Minerals + Protein Supplement	79	8.06	11%	89%
Grain + Minerals + Protein Supplement plus Semi-Solid Sow Emulsion ¹	110	9.88	5.89%	94%

Reference—Vet. Med. V xxxiv No. 9.—Sept. 1939.

¹Semi-Solid Experimental Farm Farrowing Record Fall 1946, Spring and Fall, 1947.

Proper feeding is the first consideration. You must give feeding just as much attention as breeding and management, if you expect to make money. A balanced feeding program starts with Semi-Solid SOW Emulsion and a good sow ration. It is also important to know how to feed them. We can be lazy about feeding, by putting in self-feeders for sows. But in many tests on the Semi-Solid Farm, self-feeding of sows has proved to cost \$1-\$2 extra per pig farrowed. Take a lesson from the smartest hog men in the nation, our purebred breeders. With few exceptions, these wise men practice gruel feeding for well-made pigs.

Semi-Solid SOW Emulsion

GUARANTEED ANALYSIS

Total solids (including lactic acid).....	46%
Protein	10%
Fat	2%
Lactic acid.....	4%
Fibre (max.)	None
Ash (max.)	3.8%
Vitamin A.....	16,000 U. S. P. Units per lb.
Vitamin D.....	10,800 A. O. A. C. Units per lb.
Riboflavin	5 Milligrams per lb.

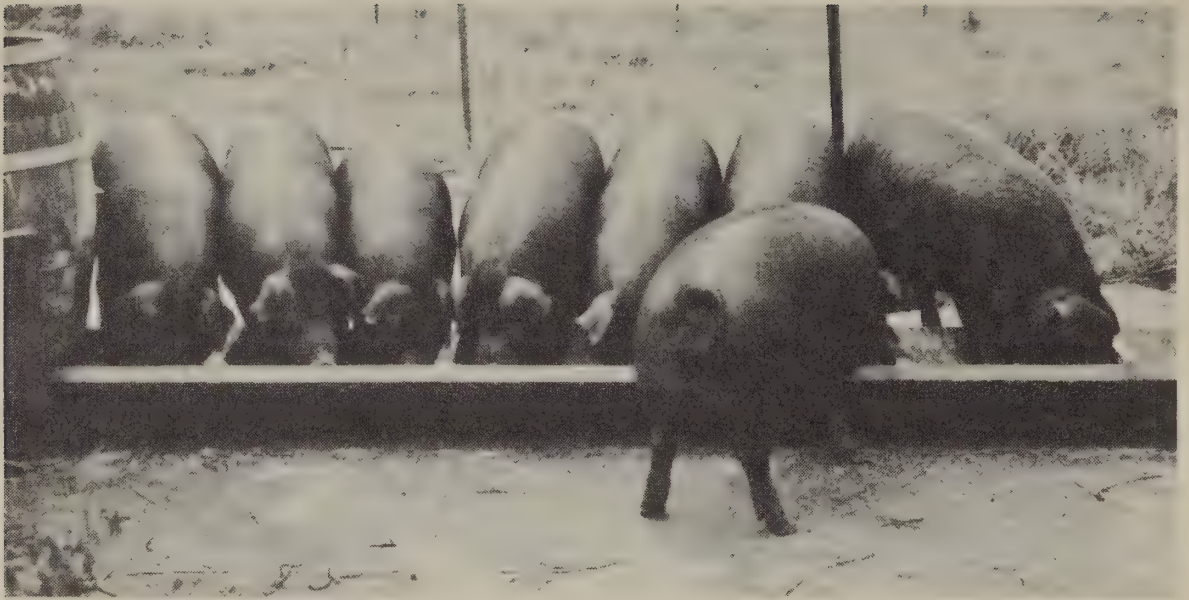


Feeding Your Sows and Gilts Before Breeding

Start here to wean 8 or more 35-40 lb. pigs per litter.

First of all, you want your gilts and sows to be in good condition for breeding, but not overly fat. Haphazard feeding won't do. Proper health and weight for breeding means readiness for the all-important job ahead. Careful attention to this job helps you plant the seed for at least seven husky pigs from a gilt, and nine or more big pigs from a sow. The whole B-Complex vitamin group in Semi-Solid SOW Emulsion helps sows and boars get more feeding value out of carbohydrates. Vitamins A and E have special reproductive values.

Make a thick gruel, or slop, of a good mixed sow ration, water and one pint (1 lb.) of Semi-Solid SOW Emulsion per head, per day. Feed this gruel twice daily. At 200 lbs. a gilt should have about 5 lbs. of ration, mixed with one pound of SOW Emulsion, per day. For each hundred pounds of weight, figure 2½ lbs. of sow ration.



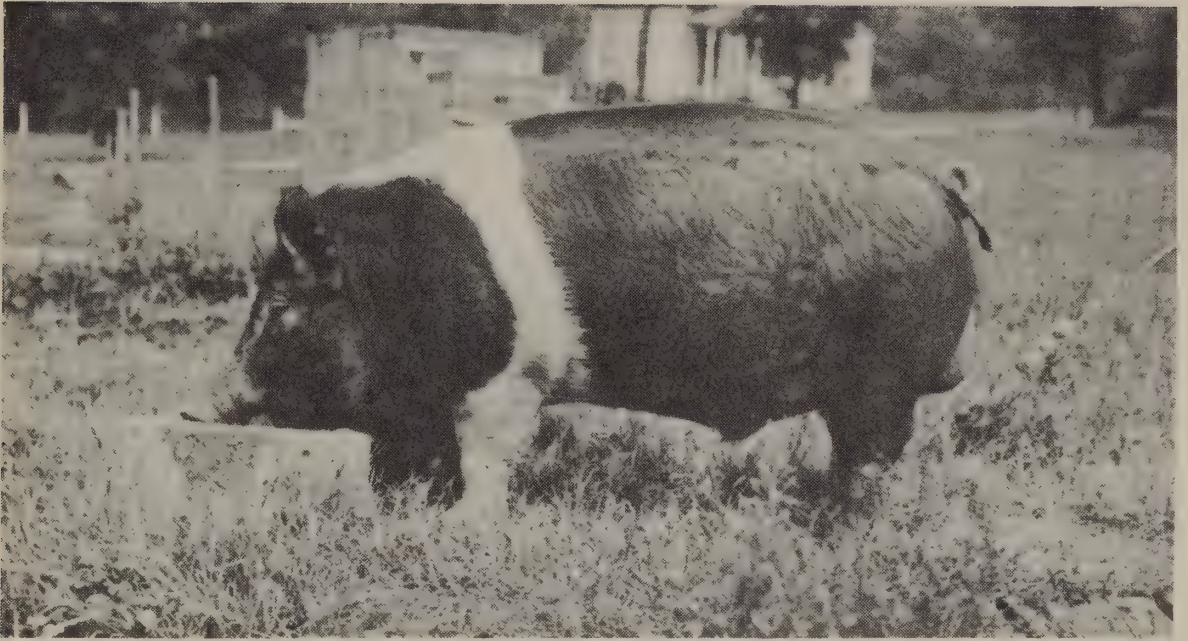
Selecting Your Gilts

Have you an eye for hog profit? Then you have an eye for a gilt. For she can make you or break you. She is the start of your sow herd. Whether you are pure breeding or cross breeding, always start with pure bred gilts. These should be your own breeding. But from time to time, new gilts from pure bred farms should be introduced into your herd.

What to look for in a gilt? Depth in heart and flank. Uniform underline. Smooth, well laid in shoulders without depression to ribs. Uniform arch and width to back, wide over top and loin. High set tail. Wide, deep, full bulged ham, carried down to hock. Strong, feminine head. Set properly on short neck, which blends into shoulders. Short straight pastern, with toes together. Strong, straight legs and feet. Long underline, with twelve even well developed teats. Smooth coat of hair.

She should be blood tested for Bang's Disease when bought off another farm. She should be bred for high production. Study her family history, remembering she is your seed stock. If you are a purebred breeder, you will select your gilts and separate from the rest of the herd at about 112 days. On the commercial farm, you may wish to wait until gilts are about five months old before selection. They'll come into heat at about five months, but should not be bred until at least 8 months old. For 50-60 pigs each spring and fall, you'll need a sow herd of 6-7 breeders.

These Duroc gilts on the Semi-Solid Experimental Farm were handpicked. They were worth a good price, because each gilt's background showed ability to produce large litters of husky pigs.

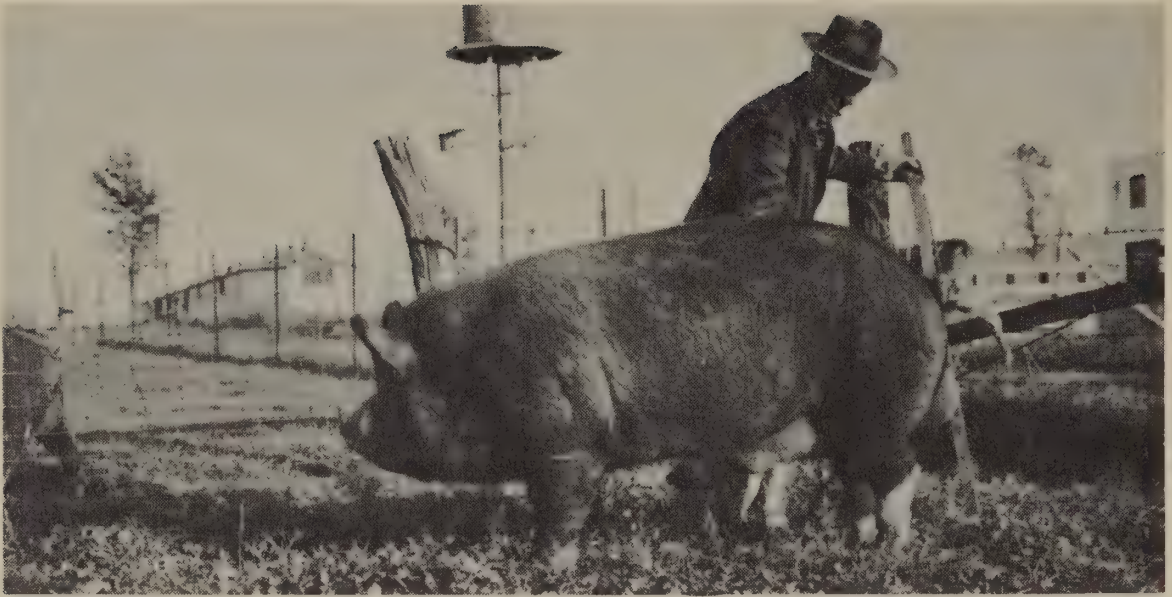


Feeding Your Boar

Feed your boar exactly the same ration you feed to gilts. Make a thick gruel of sow ration, water and one pint (one pound) of Semi-Solid SOW Emulsion per boar per day. Feed this gruel twice daily.

Hand feeding is again recommended. It is all right to cut as much labor as possible out of feeding—so long as your feeding does not become too automatic. Do not self-feed a boar. Contrary to some belief, he will not balance his own ration. You must control his condition at all times. So you must control his feed.

A growing boar needs about 2½ lbs. of gruel daily per 100 lbs. of weight. A mature boar needs enough to keep him energetic, but not fat. Two weeks before breeding, increase the total feed daily for both young and mature boars. If the mature boar starts to gain slightly, you know he is in prime condition for mating.



Selecting Your Boar

A good boar is 60% of the herd. A poor boar is 100% of the herd. Every bad point he has will be reflected in the pigs he sires. So steer clear of scrub boars. Unless you are a pure bred breeder, never raise a boar of your own. You can afford to pay a good price for a good boar . . . the price of a hundred bushels of corn any time.

Before you buy him, study his production record background. Has he a family reputation of consistently good sized litters of big pigs—growthy and easy on feed? Is he, in addition to other features recommended in a gilt, pleasing to look at? He should have a strong set of feet and legs . . . set well out and coupled solidly and compactly to body frame. Wide between the front legs, with good heart girth. Full back of the shoulders. A strong, masculine head, with character or intelligence. Does he have plenty of pep? Those are the main points to consider. After you buy him, ask his former owner about his habits and disposition, so you can handle him accordingly. For each 18-20 sows, you will need one good boar.

Now that you have a good boar, where will you put him? Well away from your sow quarters, of course. You want to keep him contented and healthy, so give him a decent home. This means a clean, comfortable shelter—with plenty of light, ventilation, and roominess. Dry quarters, with clean dust-free straw for bedding. Whether the floor is board or dirt, it should be well above the moisture level. As for his exercise lot . . . large enough for him to get his exercise, strongly fenced to keep him at home. A small concrete feeding floor is desirable for sanitation.



This Senior Spring Boar Pig, Matthew Farm, Missouri, was a 1948 Missouri State Fair winner and shows the lines of a good boar, whatever the breed.

Grading Up Hogs by the Use of Purebred Sires

Breeding	Ave. Weaning Wt. per Pig Lbs.	Ave. Market Wt. per Pig Lbs.	Ave. Daily Gain per Pig Lbs.	Ave. Age When Marketed Days	Feed Required per 100 lbs. Gain Lbs.	Feed Cost per 100 lbs. Gain \$
Scrub	22.2	200	.95	244	465	9.31
50% Purebred	28.6	200	1.18	202	403	8.07
75% Purebred	28.4	200	1.19	201	388	7.75
87½% Purebred	35.4	200	1.26	187	382	7.63

Reference: Alabama Bulletin No. 234.



Breeding Time Management

A mature boar can satisfactorily service two sows in a day . . . sometimes three. Young boars should service only one sow a day . . . often require a rest of a day between breedings. When to breed? For spring pigs, start breeding in November. For fall pigs, start breeding in May. This means 6-month old market pigs, hitting the market during the two price peaks of the year. Usually you should breed sows as soon as they come into heat after weaning.

Six to seven sows can be bred within three days, to furnish one pen of pigs. This is group breeding. A herd of from 50-60 pigs will be farrowed together. They will grow up together during suckling. They will go into a feeding lot together. They will be marketed together. Easy to handle in groups. Uniform sized growing pigs. Uniform market pigs. Time saved in keeping records.

Breed sows individually. You cannot keep records when pasture breeding. Always take the sow to the boar for sure breeding results. This is the only way you can group breed with accurate timing. Breed only once. One good service is enough. Use a small breeding pen with a level smooth floor that is firm, but not hard. Both boar and sow must be comfortable.

Ring sows at breeding time.



Feeding Your Sows During Gestation

Because we know that $\frac{2}{3}$ of unborn pig growth is made during the last 4 weeks of gestation, there may be temptation to neglect pre-breeding and early gestation feeding. The normal development of pigs and vitamin A content of rations is closely associated. Lots of vitamin A is important. The most important time for your ration to be complete in vitamins and all nutrients is previous to breeding and during the early weeks of pregnancy.

Use a good sow ration—rich in oats. During the winter, make sure this ration contains 10-15% alfalfa leaf meal. You must replace the values of pasture to sows.

Feed twice a day during gestation. For each feeding, make a thick gruel of sow ration, water and one-half pound ($\frac{1}{2}$ pint) of Semi-Solid SOW Emulsion per sow. Each sow in gestation should get a total of one pound of SOW Emulsion per day. Add to this 5-6 lbs. (depending on sow size) of sow ration at beginning of gestation. Toward end of gestation, this amount should be increased to approximately 8 lbs.

About 10 days before farrowing, add extra wheat bran to the gruel—reducing sow ration in proportion. Gradually increase wheat bran until it is 50% of the gruel at farrowing time.

Good Feeds Perform Best with Good Breeding

The Amount of Pork Marketed and the Feed Cost of Production for Sows of Inferior, Medium and Good Productivity.

Kind of Sow	No. Pigs	Weight at Weaning (lbs.)	Weight 6 Months of Age (lbs.)	Feed Up to Weaning ¹ (lbs.)	Consumed Fattening Period ² (lbs.)	Total	Feed per 100 lbs. of Hog Marketed (lbs.)
Good Producer	10	Litter 320 Per Pig 32	2595 259	1950 195	6911 691	8861 886	341
Medium Producer	7	Litter 186 Per Pig 27	1314 188	1830 261	4061 580	5891 841	448
Inferior Producer	4	Litter 116 Per Pig 29	666 167	1710 428	2090 523	3800 951	571

¹Feed of sow from breeding, and sow and litter to time pigs weaned. All animals fed balanced rations on clean pasture. No allowance made for pasture, or for gain or loss in weight of sows.

²Pigs self fed on legume pasture.

Reference: Mo. Bulletin 461.

MIXED SOW RATION. Any good mixed sow ration is acceptable for sows and boars. Here's one suggestion for sows before and during gestation:

- 60 lbs. Finely ground oats.
- 25 lbs. Ground corn.
- 10 lbs. Wheat bran.
- 5 lbs. Protein supplement.
- 2 lbs. Mineral.

Reverse the proportions of oats and corn during lactation. During extremely hot weather, sows in lactation should get a smaller amount of corn. During winter, replace 10 lbs. of the ground oats with 10 lbs. of ground alfalfa meal.

Gestation Feeding Affects Farrowing Results

Gestation Ration	Average Birth Wt. of Pigs	Per cent of Strong Pigs	Per Cent Weaned
Corn and Pasture	1.85 lbs.	41%	34%
Corn plus Protein Supple.....	2.42 lbs.	85%	67%
Grain, Supple. and Sow Emulsion.....	3.15 lbs.	95%	94%

Nutrition of sows during gestation is very important in determining how many pigs you'll save, how big they'll be and how expensive they'll be. Remember, when you feed the sow, you feed her unborn pigs. The gilt must grow and thrive, as well as produce a litter. The nutritional value of Semi-Solid SOW Emulsion is of basic importance. It gives you control over feeding. You know how milk and milk products are good for any pregnant mammal. You know that during maternity cases today, more carefully supervised diets are given expectant mothers. As a result, we have better babies that live. The same principle holds true in sow feeding. You can help gilts average nearly 3 lbs. per pig and sows average more than 3 lbs. per pig. Lactose, plus calcium and phosphorus minerals from milk in SOW Emulsion are easy to assimilate for big pigs.

Birth Weights Predict Profits

Birth Weight (Lbs.)	Weaning Weight (Lbs.)	Per Cent Weaned	Average Daily Nursing Period	Gain (Lbs.) Weaning To Market	Market Weight (In Lbs.) At Six Months
1.5	18	13	.30	1.18	164
2.0	21	49	.34	1.23	173
2.5	25	67	.39	1.32	188
3.0	28	77	.44	1.35	195
3.5	32	86	.48	1.43	209

"Properly Fortified Feeds Produce Big Strong Pigs"

Reference—Purdue Bull. 413—784 Spring Litters with 7,554 Pigs, Mo. Bull. 461.



Management During Gestation

Quarters for sows during gestation needn't be fancy. Here's one type of shelter which works well. It is open-faced, with a dirt floor. During winter, spread a couple of inches of straw over the shed floor for warmth. Twice a year clean, disinfect and put dry bedding into the sow shelter.

Locate this shelter about 150 yards or so from the sow feeding platform. This insures that twice a day your sows get some exercise. You force them to walk to the feed floor and back again.

This is especially important during winter—when sows would prefer to lie in the warmth of the house. During summer, they naturally forage around, getting enough sunshine and exercise. There is no necessity for large pastures during this gestation period. Good pasture is important, of course. We have proof of that in the fact that fall pigs are generally better than spring pigs. Summer pasture helps build the fall pigs, but sows farrowing spring pigs have had no pasture at all. One acre is enough for 8-10 sows in gestation.



About two weeks before farrowing time, prepare individual houses for your sows. For labor convenience, group the houses together during spring. Have this set-up close to the house, so it will be handy, and so you will have electricity for the pig brooders. Raise three corners of the house, so the floor will slope toward the brooder. Sloping the floor, using a pig brooder and furnishing guard rails . . . all help save pigs. Clean and scrub each house with hot lye water. Put in good dry bedding, spread very thinly. Be sure these houses are located on well drained ground.

Note that we are recommending individual farrowing houses. If you have a central house, take special care against drafts. Special farrowing crates may be an advantage for central type houses. Individual farrowing houses are inexpensive and are not drafty.

Plans for individual houses may be secured by writing to Consolidated Products Company.



For fall farrowing, these individual houses should be located right in the sow and pig lot . . . since fall farrows do not require such close attention and there is no need for electricity. If you have shade trees in the lot, locate these houses under the trees for more pig comfort and coolness during August and September.

For the first few days, whether spring or fall farrows, restrict the sow to a small pen in front of the farrowing house. For spring farrowing, keep them confined until moved to lactation lots. If ground is frozen, fresh soil or sod should be provided to help prevent anemia.

Farm layout plans provided by Consolidated Products Company show arrangements for farrowing houses in spring . . . also how to build pig brooders and guard rails.



Feeding Your Sows at Farrowing Time

On farrowing day, give the sow warm water only. The second day, add a handful or two of wheat bran to the warm water. The third day, increase wheat bran in warm water. Add a very small quantity of Semi-Solid SOW Emulsion (about enough to color the water). The fourth day, start adding some sow ration. By the seventh day, sow should be on full feed.

Big Litters Reduce Overhead

Cost Per Live Pig Farrowed	No. Pigs Saved	Cost Per Pig Weaned
\$17.92	2	\$30.62
8.96	4	15.31
5.97	6	10.21
4.48	8	7.65
3.58	10	6.12

"It Pays to Feed Sows Balanced Rations During Gestation and Nursing Periods to Save Pigs"

1. Total Cost=80% Feed + All Other Costs.
2. Feed Requirement: 797 lbs. per sow during gestation, 854 lbs. sow and litter-lactation.
3. Feed price estimated at \$3.60 per cwt. Other costs as of April, 1947.
4. Weaning cost includes feed during gestation, 66% of feed during lactation plus other fixed costs; 66% figure used as pigs die at different ages from birth to weaning.



Management At Farrowing Time

Several days before farrowing move your sows to their houses. On farrowing date, wash off sides and udders of the sow with warm water and soap.

Be on hand at farrowing. One pig, saved from chilling or crushing, will pay for your time or sleeplessness. If the sow is restless, remove all pigs from the pen as soon as they are born. After the sow has finished farrowing, put the pigs with her again.

Dry off the pigs and place under brooder, if at all possible. Remove the afterbirth. Burn or bury it.

A few days after farrowing, clean up the house. Furnish fresh short straw bedding . . . not too deep. Scatter a little air-slaked lime on the floor.

Niacin supply in the sow's body is sharply cut down after farrowing. Keep niacin supply adequate, by providing it in SOW Emulsion.



When necessary, clip off the four wolf teeth. This needs to be done only if pigs aren't suckling well, if sow teats are being lacerated, or if pigs are fighting and cutting each other. Be careful to cut the teeth cleanly above the gums. Do not break off teeth or lacerate the gums, since this might lead to infection. Here's a good way to handle this operation. After the sow has cleaned, chase her out and lock the door against her. Weigh a basket on a scale. Then put all the baby pigs in the basket. You now have them weighed. Take a pig out and nip the wolf teeth.

Then ear notch. This is to help you keep track of pigs and litters throughout growth. Your records will show which pigs to save for gilts (or boars, if you're a pure bred breeder) later.

Then to prevent navel infection, dip the navel of each pig in tincture of iodine.

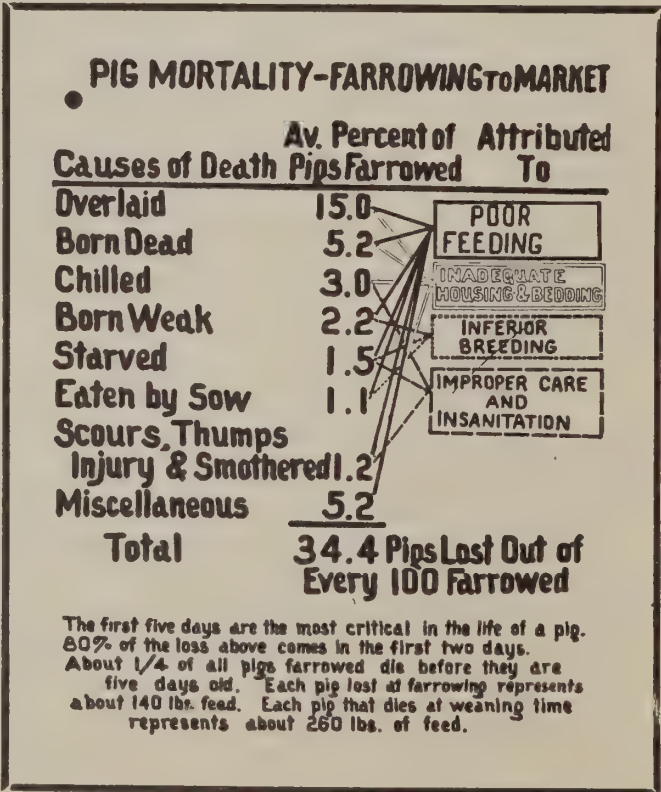


Then place the pig under the brooder for immediate warmth. This has been quite a shock to him. The warmth will help him relax and keep from chilling.

Notice, below, that the greatest single cause of pig mortality is poor feeding of the sows during the gestation period. Remember the importance of Semi-Solid SOW Emulsion in sow feeding.

To produce 1000 head of hogs (two crops a year), money can be saved on sow maintenance alone, if pig mortality is low.

When you market only 6 pigs per litter, 83 sows are needed. With 7 pigs per litter marketed, just 71 sows are necessary. And when 8 pigs per litter go to market, the sow herd needs number only 63. In any case, 3 or 4 extra sows are desirable, in case of failure to breed or if majority of breeders are gilts.





Feeding Your Sows During Lactation

Continuous high milk flow. Nutritious milk. Maintenance of body flesh. The sow must have feed which will help her do all this. Feed Semi-Solid SOW Emulsion to help your sows wean 8 or more pigs per litter. Riboflavin in guaranteed amounts is passed through the sow to the pigs, for greater vitality.

By the seventh day after farrowing, a sow should be eating a thick gruel made up of about 8 lbs. of sow ration, one pint (1 lb.) of SOW Emulsion and a little water. Feed twice a day—half in the morning and half in the evening. Your sow ration should now be heavy on corn, lighter on oats. In winter, it should contain 10-15% alfalfa leaf meal. Gradually increase the amount of ration. Increase the amount of Semi-Solid SOW Emulsion to 1½ pints a day for gilts and 2 pints a day for sows. By the end of the second week after farrowing, each sow should eat from 14 to 15 lbs. of total feed per day. This means 7-7½ lbs. each feeding.

At weaning time, vitamin A supply in the sow is usually sharply reduced. SOW Emulsion provides more vitamin A during that period. Remember the importance of vitamin A before breeding—since you may re-breed your sows after weaning.



Water is as important as feed. Sows require lots of water to make milk. In the winter, heat it slightly, so they'll drink more. In the summer, keep it cool and fresh. Water is the cheapest, and the best feed for ALL hogs. Provide all the fresh water hogs can drink. Warm it or cool it, in season, to get your hogs to drink more.



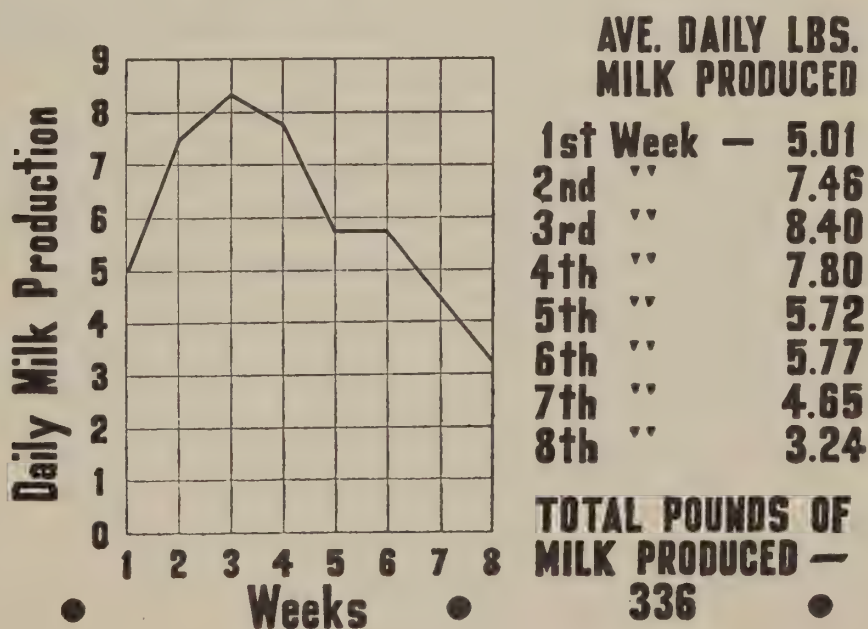
Steel tanks should be shaded during summer to help keep water cool. If exposed to the sun, a trough with automatic constantly running water is excellent. Make some sort of artificial shade over the wooden trough, such as illustrated above.

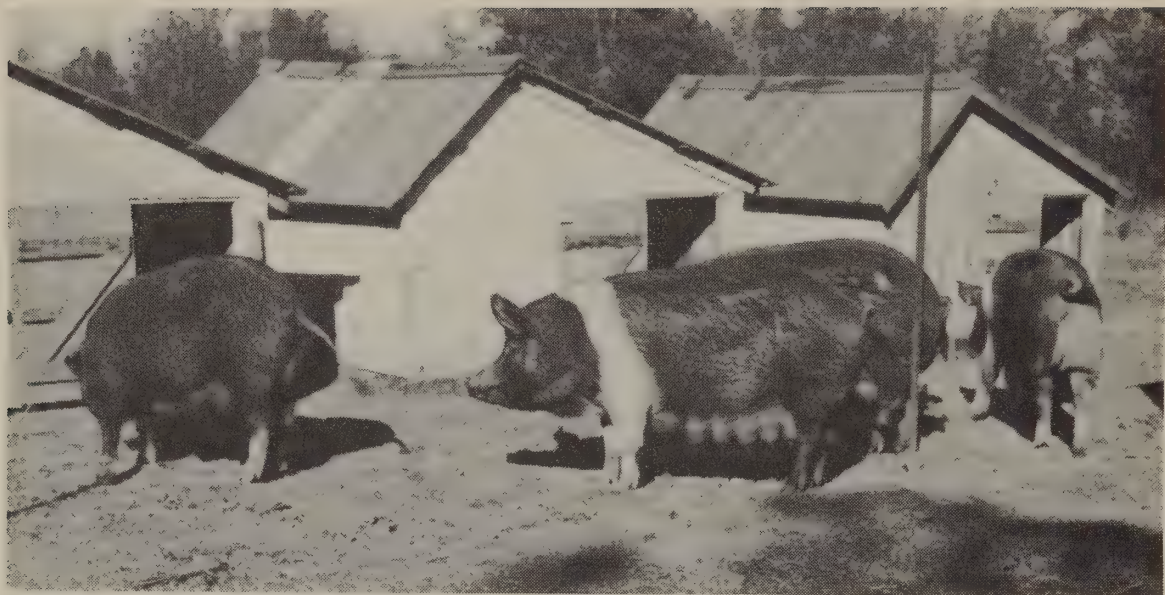


Milk is the one product in nature intended only as a food. Perhaps that's why it is nature's most nearly perfect food. Sow's milk is the most valuable of feeds for pigs. They must have all of their mother's milk possible to thrive. For the first three weeks, this is all the feed they get. Semi-Solid SOW Emulsion will help your sows produce lots of milk. If feed intake goes down, due to extreme weather, sow milk flow also slows down. Here's how to bring it up again. At noon, feed a pint (1 lb.) of SOW Emulsion in a gallon of water, per sow, as a drink. Watch how that brings the milk flow back again. Extra feeding pays big dividends for small cost.

The height of sow milk flow is at three weeks, then it begins to drop rather rapidly. As it begins to drop, you start your pigs on feed to supplement the sow milk. With proper care and feeding of good sows, they can produce around 500 lbs. of milk total, instead of the low average of 336 lbs. shown below.

Daily Milk Production of a Brood Sow





For lots of sow's milk feed your sows Semi-Solid SOW Emulsion . . . two pounds a day during the suckling period. SOW Emulsion looks like sow's milk, tastes like it, has similar nutritional value . . . when diluted in water. No wonder it helps produce sow's milk and replaces sow's milk as the sow begins to slack off on milk production.

A smooth big flow of rich sow milk can help your pigs average 35 to 40 lbs. apiece at weaning. Forced moisture intake stimulates milk flow. Vitamins A and D in SOW Emulsion are health vitamins. The right level of lactic acid and thiamine helps give sows a healthy appetite. So gilts grow during gestation and lactation. Sows keep weight during lactation, although producing lots of milk.



Feeding Your Baby Pigs

The first three weeks, baby pigs should have sow milk only.

At three weeks provide a creep, so the pigs can get in but the sow can't. Put in some dry whole shelled corn in a few pans, so the pigs can start nibbling it at three weeks. In a week, put in a self-feeder, so the pigs can eat from the feeder.

Late in the spring, and during fall, pig feeding creeps can be open. But even then, perhaps a shade over them is an advantage. For those early spring litters, here's a hint. Put a roof over the creep and sides around it. Then your pigs will eat. Without this shelter, it is difficult to get pigs to leave the warmth of the house and go eat.

Suckling Pigs Prefer Shelled Corn

Creep Feeds	Self Fed	Percentage Consumed
Shelled Corn		39 %
Coarse Ground		
Corn		7 "
Wheat Middlings		0 "
Broken Oat Kernels		35 "
Ground Oats		0 "
Hulled Oats		10 "
Ground Hulled Oats		2 "
Hog Supplement		7 "
Total		100 %

Reference: Univ. of Ill. Swine Growers' Day, April 17, 1942.



When pigs are five weeks old, after vaccination, put another self-feeder into the creep and start giving them a good protein supplement, in addition to shelled corn.

Also, at five weeks, start feeding Semi-Solid SOW Emulsion as a drink in a trough in the creep. Each morning, mix one fourth pint ($\frac{1}{4}$ lb.) of SOW Emulsion with one-fourth gallon of water for each pig in the lot.

Semi-Solid SOW Emulsion supplements the sow milk flow which is dropping off at this time. It is a balancer. It provides nearly 50% solids, most of which is whey and buttermilk. In SOW Emulsion, you give your pigs Vitamins A, D, E and the whole B-Complex vitamin group. You give them lactoglobulin, lactalbumin and casein . . . nature's most complete and easily digested protein sources. You supply minerals, lactose and lecithin. In Semi-Solid SOW Emulsion there is a combination of both animal and vegetable protein. And in Semi-Solid SOW Emulsion there is a patented ingredient containing an unusual stimulus to growth.



Managing Your Baby Pigs

Spring pigs should be moved to the lactation lot at two to three weeks. Fall pigs are already there. Six to seven sows that have farrowed together are moved with their litters to this lot. Put the houses out in the sun, away from shade, not far from the pig feeding creep. The lot should be $1\frac{1}{2}$ -2 acres in size, well drained and not too shady. These lots should be as mud-free as possible. Keep them well sodded with blue grass or seeded to legumes. Ladino Clover is excellent.

Castrate at three weeks. Three weeks is the best age to castrate pigs. On the commercial farm, castrate all boar pigs, so you don't feel tempted to raise a boar. The pure bred raiser should castrate many boar pigs, regardless of bloodlines. Poor looking boar pigs, as well as those with weak production backgrounds, should be eliminated from the herd.

Pigs are easy to castrate at this age. They can take castration better, because sow milk flow is at its peak, they've started eating corn and they are young. Easy for you to handle them, too.

In castrating, use a sharp knife or single-edge razor blade. Keep handy a pan of strong disinfectant, such as lysol or 4% coal tar dip solution. Sponge off the sac before each operation. Break or pull off the cords well forward. Then sponge the sac once more with disinfectant. Hands and knife must be clean. Keep knife in disinfectant solution when not in use.



Vaccinate at 5 weeks. At five weeks, it is time to call in your local veterinarian and get the pigs vaccinated against Cholera. Regular serum and virus is recommended if you plan to keep any breeding stock out of the herd. This is a wise precaution . . . like a good insurance investment. Five weeks is the time to do it. For you've spaced it right between castration and weaning . . . so pigs get no set back. Sow milk flow is still high. The pigs are now on full feed. The pigs are easier to handle and less costly to vaccinate now then they will be later.

HOW TO EARNOTCH BABY PIGS

1 ^U Notch upper right.....	5	1 ^U Notch lower left.....	20
1 ^U Notch upper left.....	10	1 ^U Notch lower right.....	1

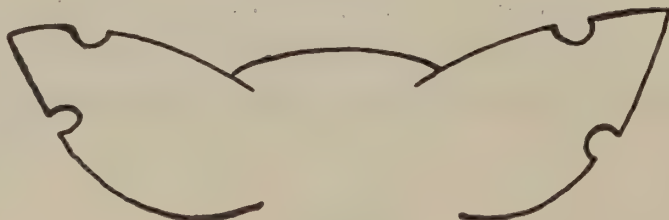
As an illustration 1^U notch in the upper right, 1^U notch in the upper left, 1^U notch in the lower right would be litter No. 16.

No. 10

No. 5

No. 20
Left

No. 1
Right





At weaning time, change pigs over from Semi-Solid Sow Emulsion to Semi-Solid PIG Emulsion. Feed $\frac{1}{4}$ pint ($\frac{1}{4}$ lb.) of PIG Emulsion in $\frac{1}{4}$ gallon of water, per pig per day, as a drink each morning. Continue feeding shelled corn and supplement in self-feeders. Semi-Solid PIG Emulsion is specially designed for weaning to market hogs.

Influence of Weight of Pig at Weaning Upon Future Feed Lot Performance

Weaning Wt. Groups	Number of Pigs	Mean Weaning Weight	Gain per Day	Wt. at 6 Mos. of Age
15-20 Lbs.	14	16.9	1.4	189.0
20-25 "	40	22.2	1.4	196.0
25-30 "	90	27.2	1.4	202.8
30-35 "	78	32.1	1.4	208.8
35-40 "	58	36.7	1.5	218.5
40-45 "	26	41.7	1.5	228.2
45-50 "	22	46.8	1.5	233.9
50-55 "	7	52.9	1.6	254.0

"Breed and Feed for Heavy Weaning Weights."

1. Size of pig at weaning indicates growth capacity of pig and milk producing ability of sow.

2. Heaviest pigs at weaning grow fastest and reach market weight earlier.

Reference: Mo. Bulletin 461.



Wean all pigs when they are between 8 and 9 weeks old. Weigh them. If you do not have regular platform scales, follow this plan: Put the pigs in a small pen. Step onto a spring scale and weigh yourself. Pick up each pig by both hind legs or by a hind and front leg. Step onto the scale again. Subtract your weight from this weight and you have the weight of the pig.



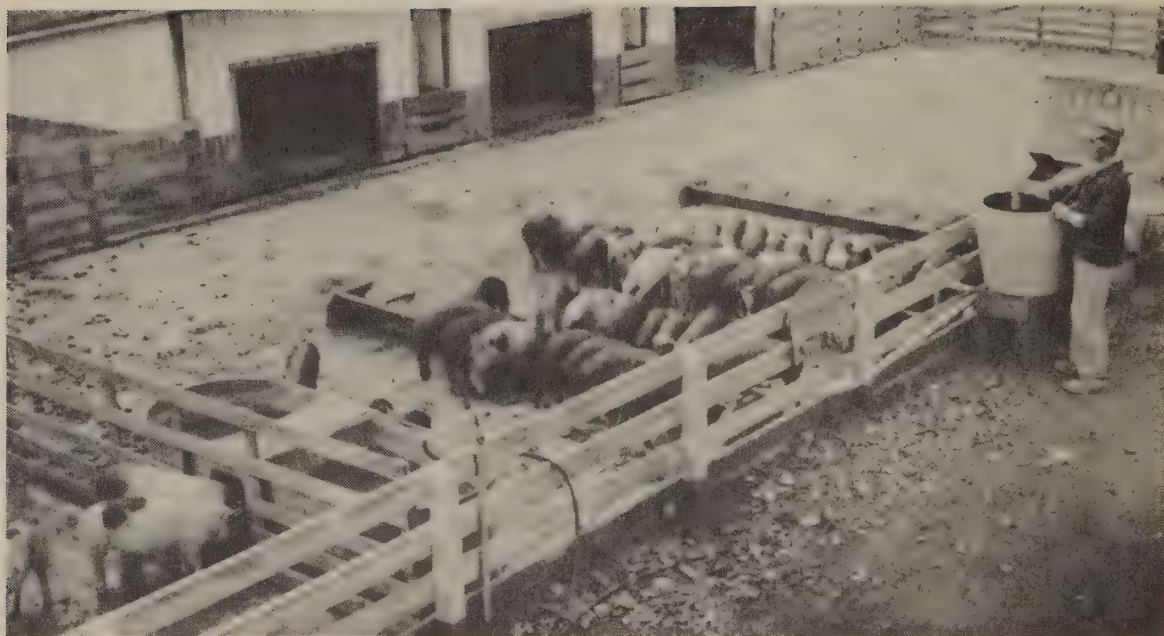
Leave the pigs in the lot, but take the sows away. If the sow is still in heavy milk production, it may be advisable to put her back with the pigs a couple of times for just long enough to allow the pigs to suckle them out. This helps avoid spoiled udders.



A balanced feeding program, including Sem-Solid SOW Emulsion, helps sows save money. Weight losses average as low as 25 lbs. per sow during suckling . . . as compared to average farm loss of 75 lbs. per sow.

Sows which have not come into heat during suckling, will do so about the third day after weaning. Breed them at this time. If these sows have consistently marketed 8 pigs or more per litter they should be rebred. They consistently can outperform gilts. Keep a sow as long as she continues to be a good mother. Five to seven litters from a good sow is not too much to expect.

The day before weaning, cut the amount of sow feed in half. On weaning day, give sows water only. If you keep the gilt or sow for another litter, put her in condition for re-breeding immediately. Feed one pint (1 lb.) of Semi-Solid SOW Emulsion per sow per day, in the gruel, as recommended for gestation period.



Feeding Pigs After Weaning

When pigs go into the feeding pens at the end of the tenth week, increase the amount of Semi-Solid PIG Emulsion to $\frac{1}{2}$ pint ($\frac{1}{2}$ lb.) of PIG Emulsion in $\frac{1}{2}$ gallon of water per pig per day. For a pen of 50 pigs, this would mean a morning drink of 3 gallons of PIG Emulsion in 24 gallons of water. Feed this drink in troughs. Use warmed water from tank, during winter.

Continue feeding whole shelled corn and hog supplement in self-feeders. Add hog mineral. Use one of the holes in a self-feeder for this mineral.

The feed combination of corn, supplement and Semi-Solid Emulsions for hogs is a high energy, low fiber ration. On a dry matter basis, you get a pound of pork for three pounds of feed. You get hogs weighing 200 lbs. in less than six months.



A 2-ton Duroc litter raised by Carnicle Farm, Ill., with the help of Semi-Solid PIG Emulsion.

Part of the secret of your success with "The Semi-Solid System" lies in balanced nutrition. The combination of Semi-Solid SOW and PIG Emulsions, grains, supplement and mineral gives you balanced nutrition to fit breeding, management and farm layout recommended in this system. It permits you to use a small hog raising area, with permanent layouts and equipment, to grow healthy, hustling hogs.

Semi-Solid PIG Emulsion is a nutritious feed, not a medicine. It is basic nutrition . . . a daily growth-maker, appetizer and conditioner.



Even on sub-zero mornings pigs relish their daily drink of Semi-Solid Pig Emulsion. Before the average herd reluctantly leaves its warm bed, these pigs have already had a big nutritious breakfast of Pig Emulsion, supplement and corn. One reason why they grow so fast and convert feed so efficiently.

FEED WITH SPEED . . . OVER THE FENCE.



Labor-saving arrangements of feeding lots. All feeding and watering is done on the side of the fence away from the hogs. Feed and water five hogs a minute—50 hogs in less than 10 minutes a day—500 hogs in less than 1½ hours per day. No fight for footing with squealing, jostling hogs. No slopping—no water to haul long distances or feed to cart out into distant fields—no mud to wade.

A water tank with piping to all pens saves hauling water. For the large hog farm, this 5,000 gal. tank is excellent. On the Semi-Solid Farm, this tank provides water for boars, sows and 1,000 market hogs a year. It has had a share in turning out every 200-lb. hog at an average cost of 9 bu. corn, 66 lbs. supplement and 64 lbs. Semi-Solid Emulsions.



SIMPLIFIED HOG FEEDING GUIDE

AGE	SHELLED CORN	SOW EMULSION	PIG EMULSION	PROTEIN SUPPLEMENT	SIMPLE MINERAL
1ST. 3 WEEKS	SOW MILK ONLY				
3RD TO 5TH WEEK	in self-feeder (creep)	None	None	None	None
5TH WEEK TO WEANING	self-fed	$\frac{1}{4}$ pt. in $\frac{1}{4}$ gal. water per pig as a drink each morning.	None	self-fed	None
WEANING TO 10TH WEEK	self-fed	None	$\frac{1}{4}$ pt. in $\frac{1}{4}$ gal. water per pig as a drink each morning.	self-fed	None
10TH WEEK TO MARKET	self-fed	None	$\frac{1}{2}$ pt. in $\frac{1}{2}$ gal. water per pig as a drink each morning.	self-fed	self-fed

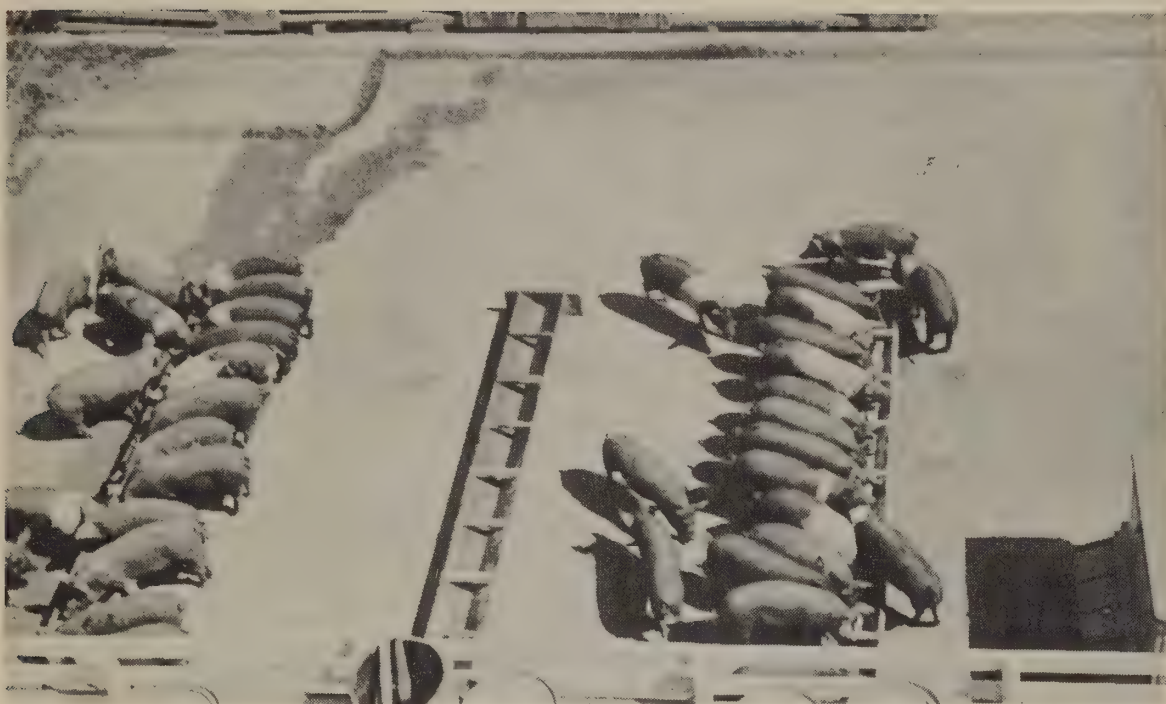


Managing Your Pigs After Weaning

Ring baby pigs immediately after weaning, to discourage the pigs from rooting up lactation lot pasture.

When pigs are ten weeks old, move them from the lactation lot to a feeding lot. This lot is 60' wide by 175' long. This gives adequate room for exercise, but not so much room that hogs will run off their fat. A concrete feeding strip is located at the front of the lot. This lot should contain necessary housing and feeding equipment, as well as some shade. Plans and bill of materials for this lot are available from Consolidated Products Company.

After moving pigs from the lactation lot to the feeding lot, use a good mange spray. Spraying has proved more effective than the old practice of providing hog oilers. Cost of hog oilers is eliminated. One good spray at 10 weeks is enough to last pigs until marketing. A benzoine hexachloride solution is suggested for both growing pigs and breeding stock.



Clean feeding floors helped these hogs hit the market at 179 days on 9 bushels corn, 66 lbs. supplement and 64 lbs. Semi-Solid Emulsions apiece. Clean concrete floors save feed, help prevent disease and keep hogs out of the mud. Hogs themselves keep cleaner, inside and out.

Wash off the feeding lot floor once a month. When hogs are sold, clean and scrub floor and interior of sheds with hot lye water. Disc the ground back of concrete floor and sow to some kind of cereal grass. Fill any wallows, or eroded spots.

The Semi-Solid System helps keep your hogs healthy, thrifty and growing fast. If any disorders should occur, however, consult your veterinarian. He's your local health expert.

Only small areas of pasture are used in "The Semi-Solid System." Pastures should not be too large or too luxuriant, else hogs fill up too much on its bulk and do not get a balanced ration. Limiting pasture also saves labor, is sanitary, and keeps hogs from running off fat.

Some hog raisers prefer large pastures because the hogs spread their manure over the farm. It is better to buy good fertilizer than to follow this practice.

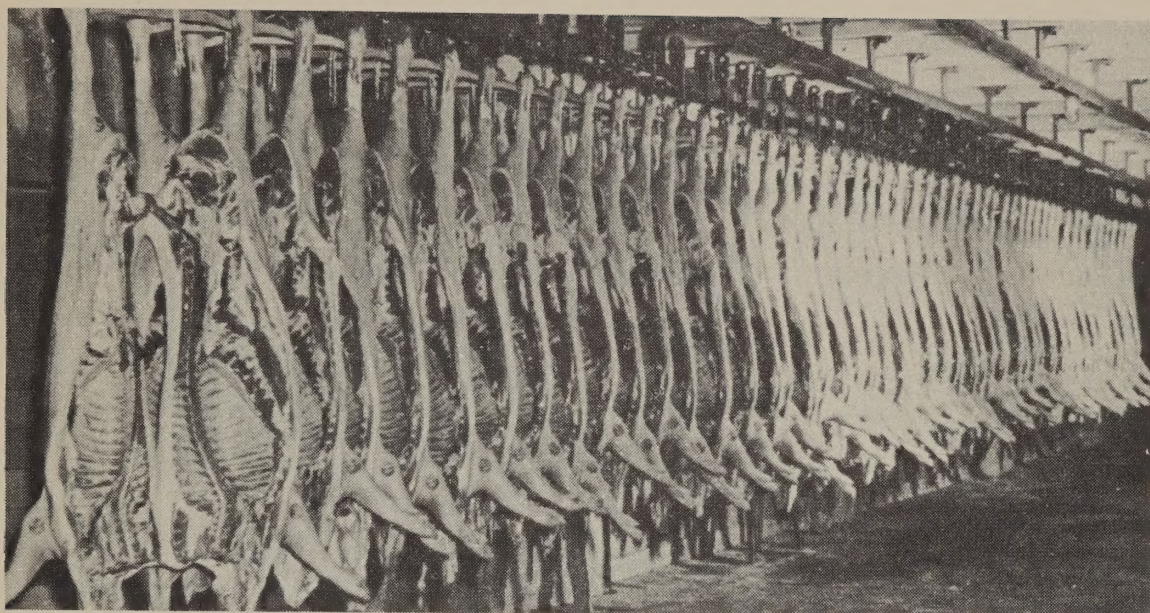
Pigs usually run the fence line, and this is where they scatter the manure. Manure from the feeding lots can be scattered easily with a spreader.

Pasture land saved by this system can be used for raising corn, under a good rotation plan.



Hogs should average 200 lbs. or better apiece at 5½ to 6 months and should be marketed at this time. Holding hogs later than this age is expensive on feed, since larger hogs do not convert feed so efficiently. Buyers want, and usually pay a better price for 200-240 lb. hogs. Less fat and higher percentage of choice cuts appeal to both the packer and the housewife. Holding hogs longer may also cause you to miss the price peak you've aimed the hogs for. August and February are the hog marketing months you should set up as goals.

Careless marketing methods can undo a lot of your work in raising hogs. So handle market hogs carefully. Use a loading pen and chute for market hogs. If your operation is large, provide permanent weighing and loading pens. For smaller herds, a temporary pen can be made from a few bales of straw. Use canvas slappers. Take care to use an electric prod sparingly. Don't pound, kick or prod them sharply. Provide a truck bed of wet sand in summer. Cover sand with straw in winter. Remove projecting nails and bolts in trucks. Drive carefully. These precautions help eliminate bruises which might knock down price.



A maximum amount of pork and a minimum amount of lard on these dressed hogs, raised by "The Semi-Solid System." This is what buyers want and pay for. These hogs, exhibited live at the 1948 Minn. State Fair, were dressed out by a prominent Minn. packing firm. The carcasses were very uniform in finish, ranging with a backfat average of 2.4 on the heavier carcasses to a 1.4 on the lighter carcasses and with a length range of 28-31 inches. They dressed 2.3% over the average for that respective weight range, and when bought on grade and yield, returned \$1.06 cwt. above the going market price at the plant for that day.

It Pays to Feed Balanced Supplements

Type of Ration	Feed for 100 lbs. of Gain	Total Feed Cost	Return per Bu. of Corn
Corn Alone	12 bu.	\$12.00	\$1.67
Corn and Tankage	7 bu. Corn 50 lbs. Tankage	\$10.00	\$2.43
Corn and Balanced Supplement	6 bu. Corn & 60 lbs. Supplement	\$9.18	\$2.82
Corn and Supplement Semi-Solid Emulsion	4½ bu. Corn 33 lbs. Supplement 32 lbs Semi-Solid Emulsions	\$8.47	\$3.79

Current prices March, 1949. In arriving at return per bushel of corn fed, supplement cost was subtracted from sale price of 100 lbs. of live hog, and credited with remainder.

Prices of Feeds:

Shelled Corn: \$1.00 a bushel. Tankage: \$6.00 cwt. Semi-Solid Emulsions: \$6.95 cwt. Protein Supplement: \$5.30 cwt.; Price of Hogs, \$20.00 cwt.

By feeding corn alone, you would need 343 acres in corn (70 bu. to acre) to feed out 1,000 hogs. Feeding corn and balanced supplement, you need 171 acres. And by feeding corn, supplement and Semi-Solid Emulsions, your acreage is further reduced to 129.



Pigs are made, not born. Breeding, management and feeding of brood sows helps you make pigs that bring a good profit year after year.

You can feed corn alone. It uses up lots of corn, perhaps at a slight profit over market price. But that leaves you little for your labor in shoveling the corn. You do risk disease. You risk poor timing. So you must market with the big runs, and you sacrifice the large profits in corn that should be yours.

You can feed supplement with your corn. Better than feeding straight corn, but you still risk disease, a month of time and a large share of the profit that can be made on your corn. Most methods of feeding supplement with corn place undue emphasis on pasture which requires extra labor in feeding and allows you to lose control of your hogs. Pasture is not always dependable.

Or you can follow the compact, efficient Semi-Solid System with which one man can raise 1,000 hogs a year on 40 acres. You then feed Semi-Solid Emulsions and supplement with corn. You gain health in your hogs, you sell 6 months after farrowing and you sell 200 lb. hogs with only 9 bushels of corn in each of them. You gain control over your hogs by seeing them each day. You force corn to pay you at least twice as much as it is worth on the market.

Sixty-six sows, farrowing twice yearly, are enough to produce 1,000 hogs per year, if they are the right kind of sows. Two hundred forty acres of good land is sufficient to house the hog project and to raise enough corn, year in and year out, to furnish the corn needed. Four and one-half bushels of corn per cwt. of pork, or nine bushels per hog, will do the trick.

We have attempted to give you the idea behind "The Semi-Solid System" of Raising Hogs and the details of this system. You are invited to visit the Semi-Solid Experimental Farm at Danville, Illinois at any time, to see this system in operation. Hog men are quick to grasp this system of pork production and a number of these installations are already at work in the corn-hog belt.

The need for specialization in swine production is being met by this system and you are urged to consider an installation. It can be started with one or more units accommodating 100 to 120 hogs per year and can gradually grow to any size you prefer. You will find it the high profit way to produce pork at a saving of grain, time and land.

Write for your free copy of:

Farm Layout, Plans and Equipment
for Installing

"The Semi-Solid System."

CONSOLIDATED PRODUCTS COMPANY

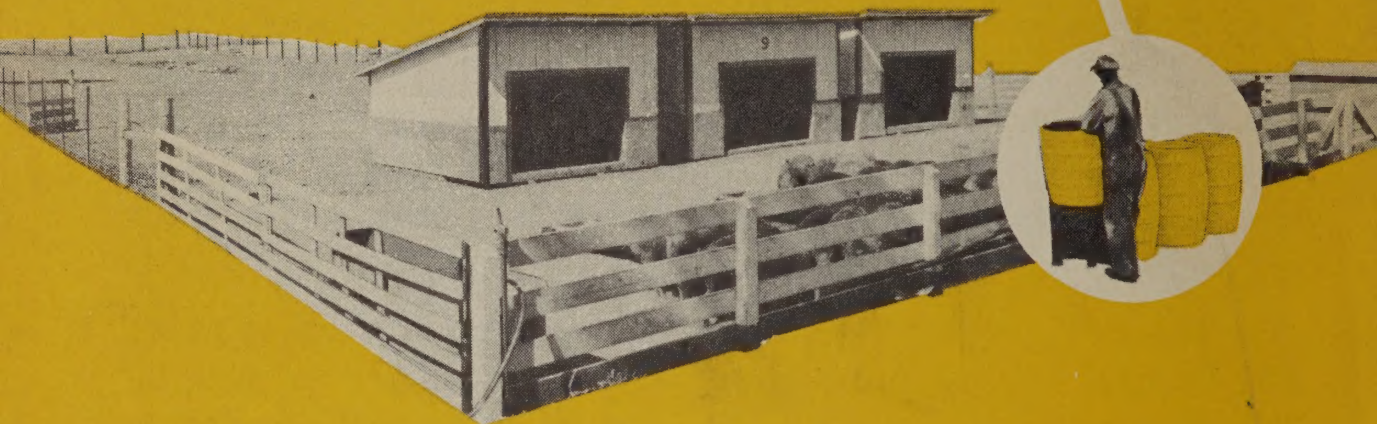
Danville, Illinois

Buy . . .

Semi-Solid SOW Emulsion
Semi-Solid PIG Emulsion

Today

One man



**Can Raise 100
or 1000 Hogs a Year**

with

"The Semi-Solid System"
OF RAISING HOGS